

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/12206

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12P7/62 C12P7/64 A61K7/48 C07C69/52 C11C3/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12P A61K C07C C11C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, CHEM ABS Data, FSTA, EMBASE, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>MAUGARD THIERRY ET AL: "Enzymatic synthesis of derivatives of vitamin A in organic media"</p> <p>JOURNAL OF MOLECULAR CATALYSIS B ENZYMATIC,</p> <p>vol. 8, no. 4-6,</p> <p>18 February 2000 (2000-02-18), pages 275-280, XP002270197</p> <p>&amp; ISSN: 1381-1177</p> <p>cited in the application</p> <p>table 2</p> <p style="text-align: center;">-----</p> <p style="text-align: center;">-/--</p>	9

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

13 February 2004

Date of mailing of the international search report

01/03/2004

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	O'CONNOR C J ET AL: "CANDIDA-CYLINDRACEA LIPASE-CATALYSED SYNTHESIS OF RETINYL AND OLEYL PALMITATES CARBON CHAIN LENGTH DEPENDENCE OF ESTERASE ACTIVITY" AUSTRALIAN JOURNAL OF CHEMISTRY, vol. 45, no. 4, 1992, pages 641-649, XP0008027552 & ISSN: 0004-9425 cited in the application abstract page 647, paragraph 3	9
X	AJIMA A ET AL: "RETINYL ESTERS SYNTHESIS BY POLYETHYLENE GLYCOL-MODIFIED LIPASE IN BENZENE" BIOTECHNOLOGY LETTERS, vol. 8, no. 8, 1986, pages 547-552, XP0008027553 & ISSN: 0141-5492 cited in the application the whole document	9
X	WO 01/078676 A (UNILEVER PLC ; LEVER HINDUSTAN LTD (IN); UNILEVER NV (NL)) 25 October 2001 (2001-10-25) the whole document	9-13
X	WO 99/32105 A (DCV INC) 1 July 1999 (1999-07-01) cited in the application page 15, line 23 - page 16, line 11 page 2, line 12 - line 27	9-13
A	DOSSAT VALERIE ET AL: "Lipase-catalysed transesterification of high oleic sunflower oil" ENZYME AND MICROBIAL TECHNOLOGY, vol. 30, no. 1, 8 January 2002 (2002-01-08), pages 90-94, XP002270198 & ISSN: 0141-0229 abstract	1
A	HARALDSSON G G ET AL: "THE PREPARATION OF CONCENTRATES OF EICOSAPENTAENOIC ACID AND DOCOSAHEXAENOIC ACID BY LIPASE-CATALYZED TRANSESTERIFICATION OF FISH OIL WITH ETHANOL" JOURNAL OF THE AMERICAN OIL CHEMISTS' SOCIETY, AMERICAN OIL CHEMISTS' SOCIETY. CHAMPAIGN, US, vol. 74, no. 11, 1 November 1997 (1997-11-01), pages 1419-1424, XP000736917 ISSN: 0003-021X abstract	1

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International application No.  
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## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 12 and 13 are (at least in part) directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/12206

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0178676	A	25-10-2001	AU 5625401 A	30-10-2001
			WO 0178676 A1	25-10-2001
			US 2002001603 A1	03-01-2002
WO 9932105	A	01-07-1999	AU 2091099 A	12-07-1999
			EP 1041979 A1	11-10-2000
			JP 2001526219 T	18-12-2001
			WO 9932105 A1	01-07-1999
			US 6136985 A	24-10-2000